Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of the	)	**PR Docket No. 92-257**
Commission's Rules	)	
Concerning Maritime	)	
Communications	)	

To: The Commission

PETITION FOR RECONSIDERATION

The Industrial Telecommunications Association, Inc. ("ITA"), pursuant to Section 1.429 of the Rules and Regulations of the Federal Communications Commission ("FCC" or "Commission"), respectfully requests that the Commission reconsider one aspect of the technical provisions adopted in the First Report and Order in the above-referenced proceeding.[1]

I. BACKGROUND

1. In its Report and Order, the Federal Communications Commission adopted rules designed to permit more efficient use of nine VHF channel pairs previously allocated solely for maritime public correspondence communications. The Commission determined that it was in the public interest to allow industrial and land transportation entities to use the nine public correspondence

[1] First Report and Order (FCC 95-178), adopted April 26, 1995, released May 26, 1995, summary published at 60 Fed. Reg. 35,507 (August 9, 1995). This document is hereinafter referred to as "Report and Order."

channels for standard two-way base/mobile operations.

2. To implement this decision, the Commission added a new Section 90.283 to the existing Part 90. Paragraph (c) of Section 90.283 limits the height of base station antennas established by industrial/land transportation licensees to 122 meters (400 feet) height above average terrain (HAAT). Similarly, the rule limits the height above average terrain of the corresponding mobile stations to 4.5 meters (15 feet). The new rule section also includes a matrix in paragraph (d) that prescribes, for a continuum of antenna height and power levels, the required minimum separation between coastlines or public coast stations and the base stations established by industrial/land transportation licensees. As with the restrictions found in Section 90.283(c), the matrix contained in Section 90.283(d) is based on height above average terrain rather than simply antenna height.

II. ISSUE ON RECONSIDERATION

3. The use of HAAT as a measure of permissible antenna heights produces, in some cases, situations that are not conducive to efficient use of the frequency pairs allocated for industrial/land transportation systems. The height of base station antennas and the corresponding mobile antennas is a factor that applicants are able to control. However, once applicants have determined their required station location,

height above average terrain is a factor over which they have no control.

4. HAAT levels common to the state of Colorado present a relevant example. Due to the extreme variation in topography, the HAAT for sites at ground level in Colorado often exceeds 1,000 feet and routinely extends to 5,000 feet, even before the length of the antenna is considered. Both base stations and mobile units operating in the Rocky Mountain area could easily have a HAAT of 1,000 feet or more. Attachment I to this petition depicts some typical HAAT's for Denver, Colorado. Attachment II illustrates HAAT levels commonly found in Greeley, Colorado. As written, Section 90.283 would effectively preclude the use of the channels allocated for industrial/land transportation systems in areas having extreme variations in terrain. Therefore, without a waiver of the rules, industrial/land transportation licensees would not be able to use the 156-162 MHz frequencies at locations having HAAT's of 400 feet or more, whether in Colorado or elsewhere.

5. Accordingly, ITA urges the Commission to adopt appropriate changes to Sections 90.283(c) and 90.283(d). ITA is not persuaded that there need be any restriction at all on the height of mobile station antennas. Practical and operational constraints will serve to confine the height of mobile antennas to reasonable levels. If the Commission remains convinced that

there must be a limit on the height of mobile station antennas, the maximum height should be expressed in terms of the overall length of the antenna from ground-to-tip.

6. It is particularly important for the Commission to amend Section 90.283 to express the antenna height limits for base stations in a more practical manner. As with mobile stations, one remedy would be to express antenna height in terms of the actual ground-to-tip length of the base station tower and antenna structure. Using the existing numerical values reflected in the matrix in Section 90.283(d), stations would therefore be limited to base station tower/antenna structures measuring no more than 400 feet from ground-to-tip.

7. Alternatively, if the Commission desired to retain HAAT as the appropriate measure of antenna height, ITA asks that it adjust the corresponding limits to reflect more reasonable values. As noted, sites in the Denver area may easily have an HAAT of 5,000 feet. From ITA's perspective, the rules must be modified in order to permit use of the newly allocated channels in Denver and similar areas of the country.

III. CONCLUSION

8. Absent the requested changes, the allocation of public correspondence channels for industrial/land transportation use

cannot be given full effect. ITA believes it is imperative that the Commission modify the rules to permit use of this allocation at sites having an HAAT in excess of 400 feet. For this reason, ITA respectfully requests the Commission to implement the changes to Section 90.283 outlined above. These relatively minor adjustments in the antenna height limits will permit licensees in all regions of the country to make full and effective use of 156-162 MHz in the manner intended.

WHEREFORE, THE PREMISES CONSIDERED, the Industrial Telecommunications Association, Inc. respectfully submits this Petition for Reconsideration and urges the Federal Communications Commission to act in accordance with the points raised herein.

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Attachments

Attachment I

Client: ITA

Site: DENVER, CO

Ground Elevation: 5333 Ft AMSL
Antenna Height: 50 Ft AGL

Coordinates: N 38 47 35
W 121 12 45

Radial	Average Terrain
0.0	411.2
45.0	753.7
90.0	779.0
135.0	486.6
180.0	255.8
225.0	158.3
270.0	134.4
315.0	183.5

Average: 395.3 Ft AMSL

AZ (degs)	HAAT (ft)
0.0	4972
45.0	4629
90.0	4604
135.0	4896
180.0	5127
225.0	5225
270.0	5249
315.0	5199

Average: 4987.7 Ft HAAT

Attachment II

Client: ITA

Site: GREELEY, CO

Ground Elevation: 4646 Ft AMSL
Antenna Height: 100 Ft AGL

Coordinates: N 38 47 35
W 121 12 45

Radial	Average Terrain
0.0	411.2
45.0	753.7
90.0	779.0
135.0	486.6
180.0	255.8
225.0	158.3
270.0	134.4
315.0	183.5

Average: 395.3 Ft AMSL

AZ (degs)	HAAT (ft)
0.0	4335
45.0	3992
90.0	3967
135.0	4259
180.0	4490
225.0	4588
270.0	4612
315.0	4563

Average: 4350.7 Ft HAAT